

# INTERNATIONAL SEARCH REPORT

International Application No  
**PCT/EP2004/002553**

**A. CLASSIFICATION OF SUBJECT MATTER**  
**IPC 7 C12Q1/70**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
**IPC 7 C12Q**

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**EPO-Internal, Sequence Search, WPI Data, PAJ, MEDLINE, BIOSIS, EMBASE, CHEM ABS Data**

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ZHOU D-J ET AL.: "One-step duplex RT-PCR assay for detection SARS associated coronavirus"	1-4, 16, 17, 20
Y	VIROLOGICA SINICA, vol. 18, no. 3, June 2003 (2003-06), pages 232-236, XP008033949 abstract; figures 2,3; tables 1,2	6, 8, 10-12, 14, 18, 19, 21
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

**16 November 2004**

Date of mailing of the international search report

**01 DEC 2004**

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**C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>JIE Y ET AL.: "Clinical detection of polymerase gene of SARS-associated coronavirus" ACADEMIC JOURNAL OF THE FIRST MEDICAL COLLEGE OF PLA, vol. 23, no. 5, May 2003 (2003-05), pages 424-427, XP008033954 abstract page 425, column 1, paragraph 3; figure 1</p>	<p>1-4, 16, 17</p>
X	<p>DROSTEN C ET AL: "IDENTIFICATION OF A NOVEL CORONAVIRUS IN PATIENTS WITH SEVERE ACUTE RESPIRATORY SYNDROME" NEW ENGLAND JOURNAL OF MEDICINE, MASSACHUSETTS MEDICAL SOCIETY, BOSTON, MA, US, vol. 348, no. 20, 15 May 2003 (2003-05-15), pages 1967-1976, XP001182527 ISSN: 1533-4406 cited in the application</p>	<p>14</p>
Y	<p>abstract page 1969, column 1, last paragraph - column 2, paragraph 2 page 1971, column 2, last paragraph - page 1972, column 1, paragraph 2; figure 2; tables 1,2</p>	<p>18</p>
Y	<p>SHI R ET AL: "DESIGN AND APPLICATION OF 60MER OLIGONUCLEOTIDE MICROARRAY IN SARS CORONAVIRUS DETECTION" CHINESE SCIENCE BULLETIN, SCIENCE PRES, BEIJING, CN, vol. 48, no. 12, June 2003 (2003-06), pages 1165-1169, XP008033964 * see especially oligo18 within Tab.1 * abstract; table 1</p>	<p>1,2,8</p>
Y	<p>WO 02/066501 A (HYBRIGENICS ; LABIGNE AGNES (FR); DE REUSE HILDE (FR); LEGRAIN PIERRE) 29 August 2002 (2002-08-29) * see especially page 513 * abstract; example 9</p>	<p>1,2,10</p>
Y	<p>WO 01/47944 A (CURAGEN CORP ; LEACH MARTIN (US); SHIMKETS RICHARD A (US)) 5 July 2001 (2001-07-05) * see especially page 2110 * abstract; claim 1</p>	<p>1,2,8</p>
	<p>----- -/-- -----</p>	

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**C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>DATABASE EMBL 'Online! EUROPEAN MOLECULAR BIOLOGY LABORATORY; 21 April 2001 (2001-04-21), KIM H ET AL.: "Cloning and characterization of novel genes related with the development of rat brain" XP002305848 retrieved from EMBL Database accession no. AT005537 abstract</p>	1,2,6
Y	<p>----- DEIMAN B ET AL: "CHARACTERISTICS AND APPLICATIONS OF NUCLEIC ACID SEQUENCE-BASED AMPLIFICATION (NASBA)" MOLECULAR BIOTECHNOLOGY, TOTOWA, NJ, US, vol. 20, no. 2, February 2002 (2002-02), pages 163-179, XP009007141 ISSN: 1073-6085 the whole document</p>	11,12, 14,19,21
A	<p>----- KSIAZEK T G ET AL: "A novel coronavirus associated with severe acute respiratory syndrome" NEW ENGLAND JOURNAL OF MEDICINE, MASSACHUSETTS MEDICAL SOCIETY, BOSTON, MA, US, vol. 348, no. 20, 15 May 2003 (2003-05-15), pages 1953-1966, XP002276003 ISSN: 1533-4406 cited in the application the whole document</p>	
E	<p>----- CN 1 458 281 A (HUANQIU ZHONGJIA BIOLOGICAL SCIENCE &amp; TECHNOLOGY) 26 November 2003 (2003-11-26) * see especially SEQ ID NO:45, nucleotides 1-20 * abstract; claim 1</p> <p>-----</p>	15

# INTERNATIONAL SEARCH REPORT

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## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 13  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 13

Present claim 13 relates to a pair of oligonucleotides defined by reference to the following parameters:  
'...each oligonucleotide being 15-30 nucleotides in length and comprising at least a fragment of 18 nucleotides, and preferably being 18-26 nucleotides in length, and comprising at least a fragment of 20 nucleotides.'

It is without saying that it is impossible to specify an oligonucleotide when its length parameter does not fit (at all) within a given range of oligonucleotide lengths. Therefore, it is contradictory that an oligonucleotide of e.g. 15 nucleotides should comprise at least a length of 18 nucleotides. The same is true for an oligonucleotide of e.g. 18 nucleotides comprising at least a length of 20 nucleotides.

It is not clear in the light of the description what should be the minimal lengths of the oligonucleotides as specified in claim 13. Therefore, the use of these parameters in the present context is considered to lead to a lack of clarity within the meaning of Article 6 PCT. The lack of clarity is such as to render a meaningful search impossible.

Consequently, no search has been carried out for claim 13.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/002553

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 02066501	A	29-08-2002	WO	02066501 A2	29-08-2002
WO 0147944	A	05-07-2001	AU	2914501 A	09-07-2001
			CA	2395926 A1	05-07-2001
			EP	1244688 A1	02-10-2002
			WO	0147944 A2	05-07-2001
CN 1458281	A	26-11-2003	NONE		